

P. sp. 'Guatemala'.—This unidentified species collected in Guatemala by Aric Bendorf is being introduced into cultivation by Leo Song, CSUF. The plant looks very similar in its vegetative parts to a small *P. moranensis*, but forms a distinct winter resting rosette, and the flower is distinctly different. The flower is a light purple color and is generally similar to *P. moranensis*, but can be distinguished by the lower petal being much longer than the other petals, by the spur which is long, but which curves upward, and finally by the top two petals, which commonly recurve back over the stem (fig. 6). Although rare at present, this taxon is easy to propagate and should become generally available in the near future.

P. "mola" (*P. moranensis* x *P. gypsicola*).—This plant forms a tight rosette of leaves during the winter, which expand to about 12cm during the summer. The summer leaves are indistinguishable from a small *P. moranensis*. The flower of this hybrid is very beautiful. It is pink, with a well marked throat and the bottom petal has a slight undulate margin (fig. 7).

P. "weser" (*P. moranensis* x *P. ehlersae*).—Because the name of this and the preceding plant have not been officially recognized, they are considered *nomina nuda* (naked names) and so are included here in quotes. This plant is easiest to grow of any of the above and flowers freely during most of the year. The plant is similar to *P. moranensis*, but doesn't grow larger than about 12cm diameter. Without the flower it is almost indistinguishable from *P. "mola"*, but it flowers freely making it easily recognizable. The flower is smaller than *P. moranensis*, seldom exceeding 5cm maximum diameter and is purple with a small white throat swatch (fig. 8).

I would like to thank Mary McGann, U.S.G.S. and Leo Song, C.S.U.F. for reviewing the article and adding their helpful criticism. I would also like to hear from other people about their experiences growing these plants.

Cultivating *Utricularia Reniformis*

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The cultivation of *U. reniformis* is very worthwhile for this striking epiphyte has both elegant leaves as well as stunning flowers. The plant grows mainly upon trees laden with moss in tropical Brazil but also can be found growing terrestrially in swamps. Their long, branching stolons intertwine with the moss and bark, securely fastening the bladderwort to the trunk and branches. The large, reniform leaves are situated on top of ascending 12 inch stems and it is these elegant leaves that gave the plant its Latin name. The flowers are said to be large and orchid-like, but my plants never produced them, possible because they were disturbed several times for divisions or the exact amount of light has not reached them. Some orchid species have exact light requirements to produce their blooms.

Since this species is such a large plant, one would expect gigantic traps but unfortunately this is not the case. The traps are small but liberally produced and nourishment comes from the trapping and digestion of minute crawling creatures.

There are two varieties in cultivation; a large, robust form and a smaller one. I grow the larger form which does very well in live Sphagnum moss placed in a large glass bowl. The 5-inch bowl is placed in a 55 gallon terrarium which also houses my *Nepenthes*, *Drosera*, *Pinguicula* and other *Utricularia* species. The bowl is placed next to the side of the tank for easy viewing of the traps and stolons.

When it looks like the *U. reniformis* is about to escape the bowl into the terrarium, I take divisions. I carefully lift the whole plant out of the bowl, remove most of the moss and place it on the work table. I keep a plant sprayer handy filled with rainwater and frequently spray the plant so that it does not dry out. With a clean, sharp razor blade, I cut off large sections that have at least one leaf showing with a few stolons spreading outwards. These stolons are white and thick, so it is best to cut into narrowing branches which connect the rhizoid-like section. Place each new plant in a plastic cup filled with moist, live sphagnum moss. Keep them shaded and undisturbed until they can be sent out as trading material.

After receiving a *U. reniformis* plant in the mail, keep the plant barely wet for several months to prevent rotting. When it's established, use rainwater to keep the moss wet but never let water accumulate on the bottom. If overwatered, the beautiful leaves will no longer be produced but instead, ugly, deformed foliage will appear. If this should happen, lay your hand on the moss and turn the container upside down so that all excess water drains out. In a while, the wonderful reniform leaves will return.

In the rainforest, these plants receive a limited amount of water in the trees, so the normal condition for proper growth is a well-drained but wet environment. Since these rainforests are dimly lit near the ground, I feel God created their large leaves for the purpose of collecting the scarce sunlight passing through the dense canopy. By making the leaves bigger, there is more of a surface area for light to shine on the plant which benefits the process of photosynthesis. This *Utricularia* prospers well under lights switched on for 16 hours a day throughout the year. To produce flowers, the plant may have more rigid requirements. I use a 48-inch workbench reflector about 16 inches from the top of the bowl using one Grow-lux and one cool-white bulb. This combination of bulbs gives a full spectrum for healthy, vigorous growth. A temperature between 65°-80° F is maintained during winter with rising summer temperatures between 70°-100° F.

Humidity is fairly high in the terrarium, high enough for luxurious *Nepenthes* growth, but there is adequate ventilation so the glass is not all fogged up. It is good to use live sphagnum moss entirely, but dead moss topped with live growing sphagnum moss is satisfactory. I've never had any problems with fungus or pests and I use no fungicides or pesticides.

Sometime in the future, I would like to mount a specimen onto a bark slab or thick branch. This would be an attractive way to cultivate this species as it grows in its natural setting.

Suggested Reading

- 1) The Carnivorous Plants — Francis E. Lloyd
- 2) Carnivorous Plants — Adrian Slack

Special Announcement

RON GAGLIARDO (Hungry Plants, 1216 Cooper Dr., Raleigh, NC 27607) reports that his CP business is now on indefinite hold rather than a definite reopening date in January. He asks that no orders or requests for lists and catalogs be sent to him until further notice.